

Media Processing Service

Getting Started

Product Documentation



Copyright Notice

©2013-2024 Tencent Cloud. All rights reserved.

Copyright in this document is exclusively owned by Tencent Cloud. You must not reproduce, modify, copy or distribute in any way, in whole or in part, the contents of this document without Tencent Cloud's the prior written consent.

Trademark Notice



All trademarks associated with Tencent Cloud and its services are owned by Tencent Cloud Computing (Beijing) Company Limited and its affiliated companies. Trademarks of third parties referred to in this document are owned by their respective proprietors.

Service Statement

This document is intended to provide users with general information about Tencent Cloud's products and services only and does not form part of Tencent Cloud's terms and conditions. Tencent Cloud's products or services are subject to change. Specific products and services and the standards applicable to them are exclusively provided for in Tencent Cloud's applicable terms and conditions.

Getting Started

Last updated : 2024-06-05 17:14:00

This document helps you quickly understand and integrate the Media Processing Service (MPS). The main steps to use the MPS are as follows:

Prerequisites

Sign-up and Login

1. [Sign up for a Tencent Cloud account](#).
2. Log in to the Tencent Cloud website, and select **Cloud Products** > **Video Services** > **MPS** to enter the MPS console and activate the service for free.

Activate the Product

The Media Processing Service covers a full range of features to meet your diverse processing needs.

Transcoding ^{HOT} Enhancement Intelligent Auditing Intelligent Identific... Intelligent Analysis Screenshot Watermark Live Recording ^{NEW}

Reduce Bitrates by 50%+

Diverse encoding options (AV1, H.266, H.265, H.264), lower bitrates without quality loss, saving playback costs.

[Demo Experience >](#)

Activate For Free

COS Authorization

Currently, MPS supports three types of input file sources: [Tencent Cloud Object Storage \(COS\)](#), AWS S3, URL.

If you wish to use COS, you must complete COS authorization, create a service role, and allow MPS to perform read and write operations such as downloading, transcoding, and uploading on files in your COS bucket.

If you wish to use AWS S3, you can skip COS authorization, but shall complete [Using Amazon S3 Buckets with MPS](#).

To use a URL as the input source, you need to authorize COS as the output source.

COS authorization

Tencent Cloud Object Storage (COS) Authorization

To facilitate accessing your files stored in the cloud and storing the processed ones in the cloud, please complete Tencent Cloud Object Storage (COS) authorization.

The diagram illustrates the workflow for media processing. It shows two main stages: 'Access your media files' and 'Store in the cloud'. Both stages list 'Tencent COS' and 'AWS S3' as options, with 'Pending authorization' status for both. Below this, a flow shows 'Input' (represented by a play button icon) leading to 'Media Processing Service' (represented by a gear icon), which then leads to 'Output' (represented by a document icon). At the bottom, there are two buttons: 'Authorize now' (in blue) and 'Skipping' (in white). A note below the buttons states: 'If you use AWS S3 as input and output, you can skip COS authorization. [How to integrate AWS S3 with MPS](#)'.

Note

If you do not complete the authorization, you will not be able to perform COS-related operations in the MPS console, or enable the [Event Notification feature](#).

Operation Steps

MPS can process your VOD files or live streams.

VOD file processing: Audio and video transcoding, enhancement, intelligent identification & analysis, quality inspection and other processing tasks can be performed on files uploaded to Tencent COS buckets. Currently only transcoding is available for files in AWS S3 buckets.

Live stream processing: Real-time recording, intelligent identification & analysis, quality inspection and other processing tasks can be performed on live streams.

VOD File Processing

Step 1: Initiate a Task

Currently, you can initiate a VOD file processing task by three methods:

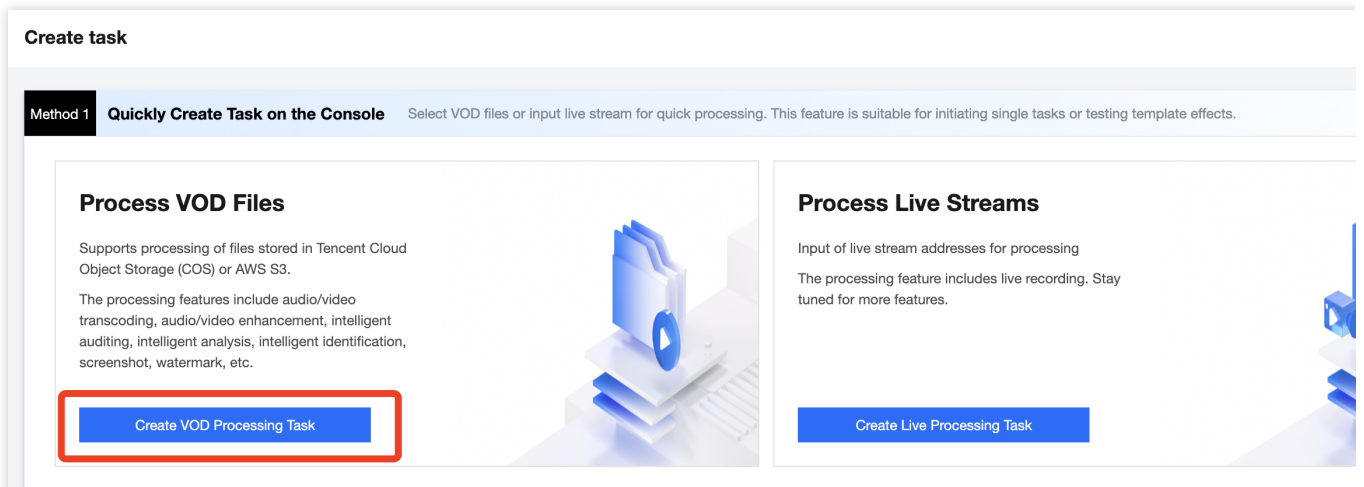
Quickly creating a task in the console: Manually select files in the console and initiate a processing task.

Automatically triggering a task: After files are uploaded to COS/AWS S3 buckets, a processing task will be automatically initiated, with no need to manually create a task in the console.

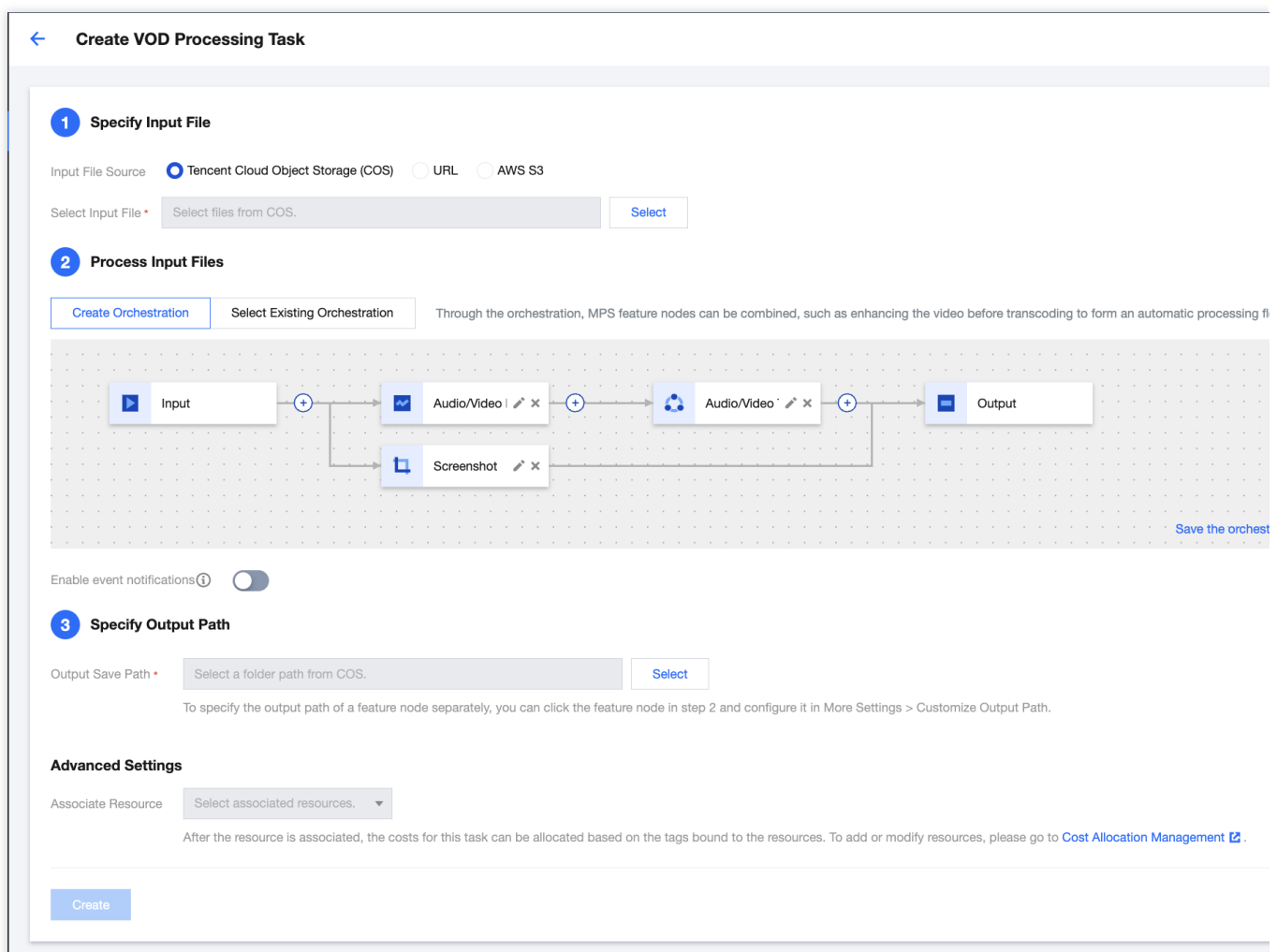
Initiating a task via an API: A task is initiated by calling the API. It is applicable to batch processing of uploaded files.

Method 1: Quickly Creating a Task in the Console

Go to the [Console Task Creation page](#), and click **Create VOD Processing Task**.



Fill in the following information on the Quickly Create VOD File Processing Task page:



1. Specify an input file

You can choose an audio or video file from a COS or AWS S3 bucket, or provide a file download URL.

Note:

If you choose COS or URL input, you shall complete the [Prerequisites - COS Authorization](#) step mentioned above. If you choose AWS S3 as the input, you do not need to complete COS authorization, but shall refer to the [Using Amazon S3 Buckets with MPS](#) document, to create an AWS sub-account, S3 input and output buckets, SQS, etc.

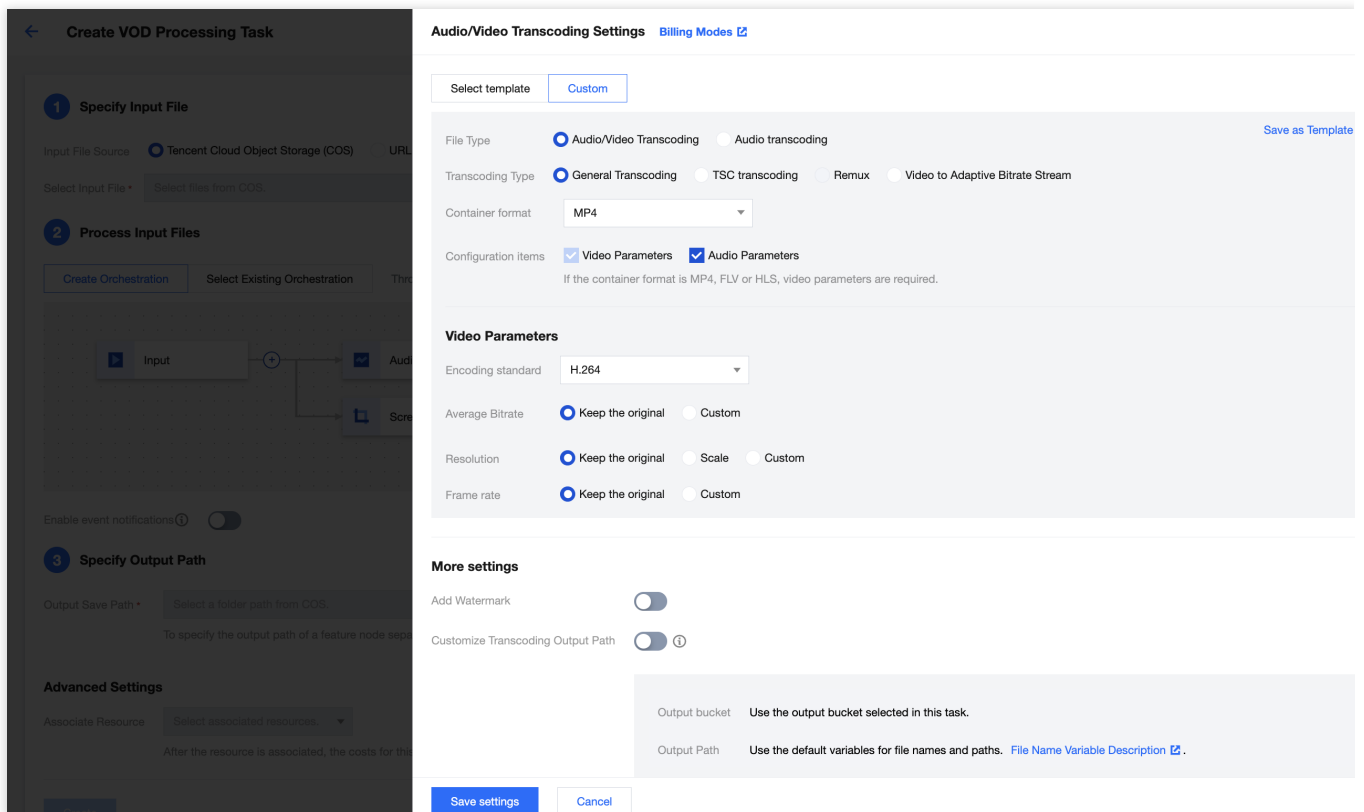
2. Scheme Processing Workflow

With a scheme, you can combine various features to form an automatic processing workflow. For example, by combining the enhancement and transcoding features, you can first enhance the image quality of the input file and then perform transcoding to reduce the bitrate.

Click **Add Feature Node**, to edit the parameters in the opened drawer floating layer. You can create templates to save parameters for the convenience of reuse.

Select a template: Use template parameters preset in the system or saved previously.

Custom: Custom parameters.

**3. Specify the output path**

Specify the default save path for the processed output file.

If you need to set a separate output path for a certain feature node in the scheme, e.g., when you add three features, namely transcoding, enhancement, and screencapturing in the scheme, and you expect the output files of screencapturing to be saved in different paths, you can click on the screencapturing node in [Step 2](#), and configure it in **More Settings > Custom Screencapturing Output Path**. You can also adjust the naming method of the output files for different features. For details, see the description of [Filename Variable](#).

Method 2: Automatically Triggering a Task

1. Go to the [Scheme Management > VOD Scheme](#) page, and click **Create VOD Scheme**.
2. Configure the trigger bucket and directory, output bucket and directory, specific task flow, etc. For configuration details, refer to [VOD Scheme Configuration Description](#).

← Create orchestration

Trigger type: AWS Tencent Cloud COS

Scheme name:
Max 128 characters; supports Chinese characters, letters, digits, underscores, and hyphens.

Trigger bucket:

Trigger directory:
Starts and ends with "/". If you leave this empty, the orchestration will be applied to all directories of the bucket.

Output bucket:

Output directory:
Must start and end with a slash (/). If you do not specify this, the output directory will be the same as the trigger directory.

Enable event notifications:

Off-peak transcoding:
Currently, off-peak transcoding is only supported for audio/video transcoding actions. More will be supported in the future.

Actions:

```
graph LR; Input[Input] --> AV1[Audio/Video]; Input --> IA[Intelligent An]; AV1 --> AV2[Audio/Video]; IA --> AV2; AV2 --> Output[Output]
```

3. By default, auto-trigger is not enabled for the scheme. Go back to the [Scheme Management > VOD Scheme](#) page and click **Enable** to enable the auto-trigger feature.

VOD Orchestration Through the orchestration, MPS feature nodes can be combined, such as enhancing the video before transcoding to form an automatic processing flow.

[i](#) Create a VOD orchestration and enable it. Uploading a new file in the associated bucket will automatically initiate the processing task.

[Create VOD orchestration](#)

Scheme name/ID	Scheme type	Trigger bucket	Trigger directory	Creation time
10101	Preset	-	-	Aug 04, 2023
10100	Preset	-	-	Aug 04, 2023
30826	Custom	ap-tokyo	/input/	Jun 04, 2024
30800	Custom	ap-singapore	/mps/	Jun 03, 2024
30799	Custom	ap-singapore	/mps/	Jun 03, 2024
30798	Custom	ap-singapore	/mps/	Jun 03, 2024
23773	Custom	ap-singapore	/	Aug 29, 2023

Total items: 7

4. Upload a video file that needs processing to the trigger bucket configured in the scheme. The newly uploaded video will then be automatically processed according to the tasks configured in the scheme, with no need to manually create a task in the console.

Note

After auto-trigger is enabled for the scheme, it will only take effect in video files newly uploaded to the trigger bucket. Files previously stored in the trigger bucket will not be processed automatically.

Method 3: Initiating a task via an API

Refer to [Proactively Initiate Transcoding](#), and initiate tasks through an API [ProcessMedia](#). The following new features have not been launched on the console yet, but can be experienced through the API:

Media Quality Inspection: Supports video file format diagnosis, video image content detection (shaking, blur, low light, overexposure, black edge, white edge, black screen, white screen, image glitch, noise, mosaic, QR code, etc.), and no-reference scoring.

Step 2: Manage Tasks

1. By entering the [VOD Task Management](#) page, you can see a list of all tasks you have initiated.
2. You can filter tasks to be processed by task status, Task ID, etc. You can also click **View details** to view subtask information, click the Restart button to restart tasks queuing up, play the source video, and perform other operations.

VOD Processing Tasks

This page only shows tasks in the past seven days

[Create task](#)

Task ID	Status	Task type	Creation time	En														
2600	Completed	Audio/Video Enhancement	Jun 04, 2024 14:39:26 (UTC+08:00)	Jur														
<table border="1"> <thead> <tr> <th>Subtask No.</th> <th>Subtask status</th> <th>Subtask type</th> <th>Template Type</th> <th>Start time</th> <th>End time</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Successful</td> <td>Audio/Video Enhancem...</td> <td>-</td> <td>Jun 04, 2024 14:39:26 (...)</td> <td>Jun 04, 2024 14:40:15 (...)</td> <td>c</td> </tr> </tbody> </table>					Subtask No.	Subtask status	Subtask type	Template Type	Start time	End time	Output	1	Successful	Audio/Video Enhancem...	-	Jun 04, 2024 14:39:26 (...)	Jun 04, 2024 14:40:15 (...)	c
Subtask No.	Subtask status	Subtask type	Template Type	Start time	End time	Output												
1	Successful	Audio/Video Enhancem...	-	Jun 04, 2024 14:39:26 (...)	Jun 04, 2024 14:40:15 (...)	c												
2601	Completed	Audio/Video Enhancement	Jun 04, 2024 14:36:56 (UTC+08:00)	Jur														
260	Completed	Audio/Video Enhancement	Jun 04, 2024 14:35:27 (UTC+08:00)	Jur														

3. By expanding the subtask list, you can view subtask information, play/view subtask files, download subtask output files, view subtask details, and perform other operations.

VOD Processing Tasks

ⓘ This page only shows tasks in the past seven days

[Create task](#)

Task ID	Status	Task type	Creation time		
▼	Completed	Audio/Video Enhancement	Jun 04, 2024		
Subtask No.	Subtask status	Subtask type	Template Type	Start time	End time
1	Successful	Audio/Video Enhancem...	-	Jun 04, 2024 14:39:26 (...)	Jun 04, 2024 14:40:00
▶	Completed	Audio/Video Enhancement	Jun 04, 2024		
▶	Completed	Audio/Video Enhancement	Jun 04, 2024		
▶	Completed	Audio/Video Enhancement	Jun 04, 2024		
▶	Completed	Audio/Video Transcoding, Screenshot, ...	Jun 04, 2024		

Details

Basic information

Subtask No. 1

Subtask status Succe

Start time Jun 04

End time Jun 04

Template information

Template Type -

Template parameters [View](#)

Input information

URL <https://>

File size 4.17 M

Bitrate 654.2k

Frame rate 24 fps

File duration 00:00

Output information

Bucket

Bucket Location Singa

File path /mps_

File size 4.29 M

Bitrate 675.0k

Frame rate 24 fps

File duration 00:00

Live Stream Processing

Step 1: Initiate a Task

Currently, you can initiate a live stream processing task by two methods:

Quickly creating a task in the console: Manually configure and initiate a processing task in the console.

Initiating a task via an API: A task is initiated by calling an API.

Method 1: Quickly Creating a Task in the Console

Go to the [Console Task Creation page](#), and click **Create Live Processing Task**.

Create task


Method 1 Quickly Create Task on the Console Select VOD files or input live stream for quick processing. This feature is suitable for initiating single tasks or testing template effects

Process VOD Files

Supports processing of files stored in Tencent Cloud Object Storage (COS) or AWS S3.

The processing features include audio/video transcoding, audio/video enhancement, intelligent auditing, intelligent analysis, intelligent identification, screenshot, watermark, etc.

[Create VOD Processing Task](#)



Process Live Streams

Input of live stream addresses for processing

The processing feature includes live recording, S more features.

[Create Live Processing Task](#)

Follow the page instructions to configure the live stream address, scheme, and output save path. Currently, the console supports real-time recording of live streams. For detailed template configurations, refer to [Live Stream Recording Template](#).

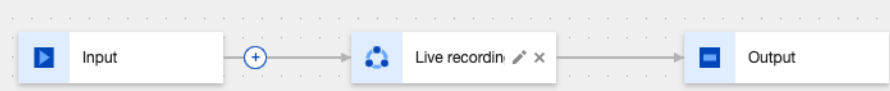
Create Live Processing Task

1 Specify Input File

Live stream address

2 Process Input Files

[Create Orchestration](#)



```

graph LR
    Input[Input] --> Live[Live recording]
    Live --> Output[Output]
    
```

Enable event notifications

3 Specify Output Path

Output Save Path [Select](#)

To specify the output path of a feature node separately, you can click the feature node in step 2 and configure it in More Settings > Customize Output Path.

[Create](#)

Note:

When creating a live stream recording task, ensure that the live stream address is correctly entered. If the live stream fails to be pulled the first time, the pulling operation will be retried three times. If the operation still fails, a message of failure will be returned for the recording task.

Method 2: Initiating a Task via an API

Initiate a single live stream processing task via the API [ProcessLiveStream](#). It supports the following features:

Smart Moderation: Supports recognition of pornographic content in images and sounds, and detection of sensitive information.

Intelligent Identification: Supports recognition of faces, objects, text, and speech. Speech recognition also supports intelligent translation and real-time subtitle conversion. It includes features such as game tagging.

Intelligent Analysis: Supports real-time news segmentation and other features.

Quality Inspection: Supports live stream format diagnosis, video image content detection (shaking, blur, low light, overexposure, black and white edges, black and white screens, image glitch, noise, mosaic, QR code, etc.), no-reference scoring, and other features.

Live Stream Recording.

Step 2: Manage Tasks

Go to the [Live Stream Task Management](#) page, where you can see a list of all the live stream processing tasks you have initiated. You can view task details, terminate tasks, and perform other operations.

Live Processing Tasks

📘 You can create a live processing task to record live content. [Learn more](#) 🔗
This page only shows tasks in the past seven days

Create task

Task ID	Status	Task type	Creation time	
7329dde22...	Completed	Live recording	Jun 04, 2024 10:50:04 (UTC+08:00)	Jur

Subtask No.	Subtask status	Subtask type	Template Type	Start time	End time	Output
1	Successful	Live recording	Live recording	Jun 04, 2024 10:50:08 (...)	Jun 04, 2024 11:18:10 (...)	

je1839a82a69d7a59...	Completed	Live recording	Jun 04, 2024 10:47:23 (UTC+08:00)	Jur
----------------------	-----------	----------------	-----------------------------------	-----

Total items: 2